

REMARKS

Applicants have now had an opportunity to carefully consider the Examiner's comments set forth in the Office Action of July 8, 2004.

Reconsideration of the Application is requested.

The Office Action

Claims 1 - 22 remain in this application.

Claims 1 – 4, 6 – 9 and 16 – 20 stand rejected under 35 U.S.C. 102(e) as being anticipated by Owa et al. (U.S. Patent No. 6,348,971).

Claims 5, 10 – 15 and 21 – 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Owa in view of Smirnov et al. (U.S. Patent No. 6,546,364).

Brief Summary of the Claim Amendments

Claim 1 has been amended to further describe and distinguish from the cited prior art the concept of autonomous cells.

Claims 2 – 4 and 6 – 9 have been amended to further define the amended claim language of claim 1.

Claim 10 has been amended to further distinguish the claimed method from the cited prior art.

Claim 11 has been amended to more closely reflect the claim language of amended claim 10.

Claims 16, 18 and 21 have been amended to more closely reflect the language of the amended claims.

Comments/Arguments

As to independent claim 1, the office action asserts that Owa discloses the concept of “dividing the resources into autonomous cells (each printer of Fig. 1 accommodating in its own cell (space location))”. The Applicants respectfully disagree with this assertion. A cell, as disclosed in the present application, is defined by more than just the space location which is occupied by the cell resources. The concept of an “autonomous cell” as claimed in the present application is a sufficient grouping of resources capable of receiving and completely processing at least one class of print job. These resources may include printers, copiers, inserters, rollers, shrink-wrappers, cutters and manual

resources. The autonomous cells are constructed such that there need not be any interaction between the cells in the processing of a single print job. The cells are "autonomous" in that a single cell contains sufficient resources to fully process at least one class of print job, wherein a class of print job is defined by the operations required to process the print job. Nowhere in Owa is this concept of an "autonomous cell" taught or fairly suggested, rather Owa teaches a printing system wherein an optimal printer is selected from a plurality of printers connected in a network based on user print commands and specifications and printer information. The printing system of Owa, matches a print job including user specified printing criteria with a printer capable of printing the print job while satisfying the user printing criteria. Owa discloses a method of assigning priority to user selected criteria, either on a document basis or an individual page basis, in order to choose a particular printer ("cell" as defined in the office action) from the printer network which best satisfies the priority criteria set by the user. The disclosure of Owa describes a network of printers which will interact to complete a print job based on a page by page basis of the user's prioritized criteria. This concept teaches away from the claims of the present application wherein the individual cells do not interact to process a print job. Furthermore, Owa neither teaches nor fairly suggests dividing the resources of the printshop into autonomous cells. Owa discloses a plurality of printers and a host computer connected in a network wherein the host computer selectively drives the printers based on information obtained from the user and the printers.

For at least the reasons cited above independent claim 1 distinguishes over the cited reference and is in condition for allowance. Claims 2 – 9, which depend from independent claim 1, are also therefore allowable.

The rejections of independent claim 10 and claims 11 – 15 which depend therefrom are hereby traversed. The office action asserts that the subject matter of claims 10 – 15 is disclosed by the combination of Owa in view of Smirnov. In view of the arguments stated above, the Applicants submit that Owa neither alone nor in combination with Smirnov teach or fairly suggest dividing the resources of the printshop into autonomous cells capable of completing at least one class of print job. Furthermore, neither Owa nor the combination of Owa and Smirnov teach or fairly suggest dividing a print job which has been assigned to a selected autonomous cell into smaller sized lots such that different lots can be

concurrently processed within a cell utilizing more than one resource of the cell at the same time. Specifically, a print job that has been divided into smaller lots can have one lot being shrink-wrapped while another lot is being stapled and a third lot is being printed. The Owa patent discloses the printer selection system as described above and Smirnov teaches a method and apparatus containing a scheduling engine and a workflow engine. The scheduling engine of Smirnov is configured to build workflows that describe the tasks to be performed in a dynamically changing environment and the workflow engine of Smirnov is configured to monitor the execution of the tasks to be performed. Neither of the references disclose autonomous cells containing sufficient resources to fully process a print job or a class of print job within the single cell. Therefore, neither Owa nor Smirnov either alone or in combination teaches nor fairly suggests the concepts of dividing the resources of the printshop into autonomous cells or dividing print jobs into lots capable of being concurrently processed within an autonomous cell.

For at least the reasons cited above, the Applicants submit that independent claim 10 and claims 11 – 15 depending therefrom are distinguished and in condition for allowance.

As to independent claim 16, the Applicants respectfully submit that Owa neither teaches nor fairly suggests “autonomous cells” for the same reasons as stated above. Furthermore, Owa does not disclose a method for partitioning a printshop into autonomous cells. Claim 16 of the present application outlines a method for partitioning a printshop into autonomous cells (groups of resources) by identifying the products to be produced, identifying the operations required to produce the products, determining the resources required for the operations and partitioning the resources into the autonomous cells. Owa neither teaches nor fairly suggests this method; rather Owa discloses a printing system comprising a plurality of printers in a network with a host computer. Owa further teaches a method of selecting one of the plurality of printers based on user defined criteria and printer capabilities and specifications. Therefore, the Applicants respectfully submit that independent claim 16 is distinguished and in condition for allowance. Furthermore, claims 17 – 22 which depend from claim 16 are also distinguished and in condition for allowance.

CONCLUSION

For the reasons detailed above, it is submitted all claims remaining in the application (Claims 1 - 22) are now in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

No additional fee is believed to be required for this Amendment A. However, the undersigned attorney of record hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Deposit Account No. 24-0037.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he/she is hereby authorized to call Mark S. Svat, at Telephone Number (216) 861-5582.

Respectfully submitted,

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Date

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